

News Release

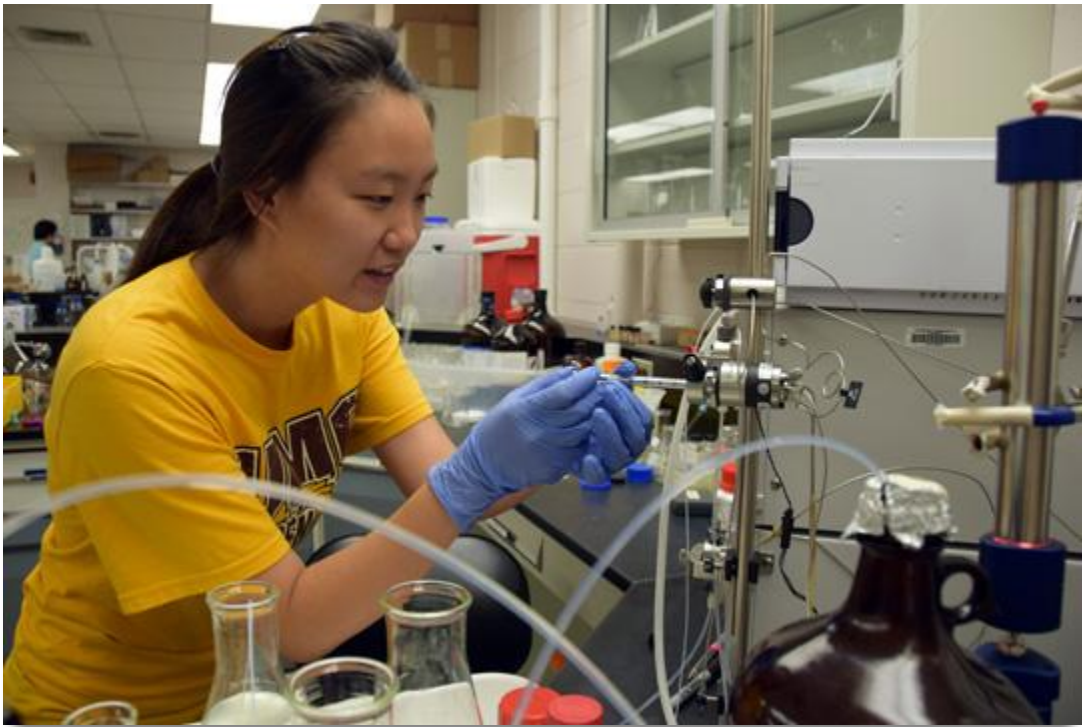
Research on Purple-Headed Sneezeweed Required Patience, Persistence

By Elizabeth Tollefson on Tuesday, June 30, 2015

Success can often be attributed to persistence and patience, and those qualities are both evident in the life of Gyungyoun "Ann" Baek, a May 2015 graduate of the University of Minnesota Crookston.

Baek came from South Korea to the University of Minnesota where she enrolled in an English as a Second Language program prior to transferring to the Crookston campus. She claims she didn't study hard enough growing up in South Korea, but that certainly is not borne out in her work and involvement as an undergraduate at the U of M Crookston.

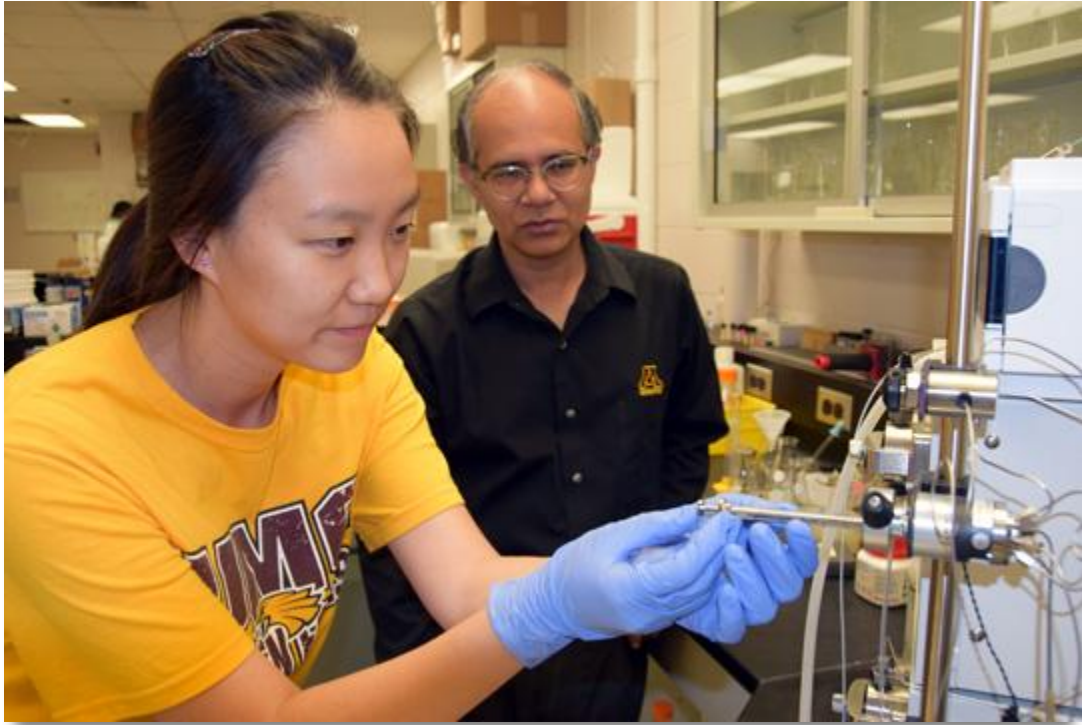
"I would like to become a medical doctor," Baek says. "I didn't always see that as my goal when I was younger, but it is something I have been working toward since I came to Crookston." Her degrees in biology and health science along with a minor in chemistry from the U of M Crookston will serve as the foundation for her future in medicine.



She has been involved in the Crookston Student Association, served as a community advisor, and participated in the Multicultural International Club, but for the past two years, she has also focused on undergraduate research.

Her advisor, Venuopgal Mukku, Ph.D., began working on research examining plant extracts that might possess antibacterial activity. Over the years, he has involved several undergraduate research students in the work and Baek was one of the most recent. She patiently spent summers, as well as time during the academic year, working to purify molecular structures in plant seeds, specifically the purple-headed sneezeweed. Considering the untold number of molecular structures that exist within a tiny seed, Baek has worked ever so patiently on the purification process which will eventually isolate a single molecular structure within the purple-headed sneezeweed seed.

"The purification process involved the repetition of the same scientific process many, many times," says Baek. "And, that work is ongoing." But for Mukku and Baek, results have been trending toward some promising results and the patience and perseverance seem to be paying off. This summer the two are working to publish some of what they have gleaned from their research before Baek moves on to the next steps for her medical degree.



Under the guidance of Mukku, Baek secured a Undergraduate Research Opportunities Program grant to help fund Baek's involvement with the research project. In spring 2014, she presented her research in Lexington, Kentucky, at the National Conference on Undergraduate Research (NCUR), an interdisciplinary conference where students representing universities and colleges from all around the U.S., and internationally, present their research and creative works.

Baek has served as editor of the weekly newsletter on campus, the *Eagles Eye*, and she has also been active in community service projects. She was recognized in April with a Student Achievement Award, recognizing those students who have excelled academically as well as in leadership and service to the University and local community.

The University of Minnesota Crookston now delivers 33 bachelor's degree programs, 22 minors, and 36 concentrations on campus as well as 14 degree programs entirely online. These degrees are offered in the areas of agriculture and natural resources; business; liberal arts and education; and math, science and technology. With an enrollment of 1,800 undergraduates from more than 20 countries and 40 states, the Crookston campus offers a supportive, close-knit atmosphere that leads to a prestigious University of Minnesota degree. "Small Campus. Big Degree." To learn more, visit [www.umcrookston.edu](http://www.umcrookston.edu).

PHOTOS: In photo at top, Ann Baek works in the lab on her research on purple-headed sneezeweed seed extracts.

In the photo at bottom, Venu Mukku, Ph.D., (right) oversees the work of Ann Baek. Mukku is Baek's advisor and they have been working on the research together for the past two years.

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